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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/666,732	09/22/2003	Toshio Kobayashi	2038-297	6067
22429	7590	12/19/2005	EXAMINER	
LOWE HAUPTMAN GILMAN AND BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 /310 ALEXANDRIA, VA 22314			COLE, ELIZABETH M	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/666,732

Applicant(s)

KOBAYASHI, TOSHIO

Examiner

Elizabeth M. Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 11-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 11-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

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1. Claims 12-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not teach that the first and second fibers are permanently bonded. Also, claim 13 fails to further limit claim 12 because the limitation that "a plural number of said second fibers are attached to each said first fiber in multiple said attaching areas arranged longitudinally of said first fiber" is already found in claim 12 which recites that "each of the second fibers is attached to one of the first fibers multiple times in a plurality of said attaching areas arranged longitudinally of said first fiber".

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 4, 12-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Billarant et al, U.S. Patent No. 6,541,403. Kobayashi et al discloses a material comprising a nonwoven fabric which comprises first elastic fibers and second inelastic fibers. The nonwoven may be formed so that the first elastic fibers are in a first portion of the fabric and the second inelastic fibers are in a second portion of the fabric, (claim 2). See paragraph 0006. The layers are bonded so that the second fibers are bonded to the first fibers such that the length of the second fibers is longer

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than the distance between bonding points. See paragraphs. 0008 and 0024. The second fiber can be a single fiber. Kobayashi does not disclose the slip angle of the first and second surfaces. However, since Kobayashi discloses the same structure, it is reasonable to presume that the material of Kobayashi would inherently possess the claimed slip angle. With regard to claim 12, Kobayashi does not explicitly teach that each of the second fibers is attached to one of the first fibers multiple times in a plurality of said attaching means. However, since Kobayashi does teach that there are a plurality of bonding points and does teach that the inelastic second fibers are preferably continuous fibers, it would appear that the inelastic second fibers would necessarily be bonded to the first fibers multiple times or that it would have been obvious to one of ordinary skill in the art to have selected the number of bonds through the process of routine experimentation in order to arrive at a bonded material having the desired elasticity and flexibility.

4. Kobayashi differs from the claimed invention because it does not disclose that the elastic fiber has grooves in portions of it. Billarant teaches that elastic fibers suitable for incorporation into nonwoven webs may comprise a sheath/core configuration and a plurality of grooves. The use of the sheath/core configuration and the grooves permits the fabric to be bondable but also be elastomeric. Therefore, it would have been obvious to one of ordinary skill in the art to have employed the particular fibers of Billarant as the elastic fibers in Kobayashi, motivated by the expectation that this would make the elastic fibers more easily bonded while still being elastic.

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5. With regard to claims 19-25, Kobayashi discloses the claimed invention as set forth above except Kobayashi does not disclose that the elastic fibers are also conjugate fibers. Billarant teaches that elastic fibers suitable for incorporation into nonwoven webs can have a sheath/core configuration. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed conjugate fibers as the elastic fibers in Kobayashi, motivated by the expectation that this would facilitate bonding of the fibers while maintaining the structural integrity of the fibers, due to the lower melting sheath component and the higher melting core component.

6. Claims 5 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al, US Patent Application Publication 2002/0061390, in view of Billarant as set forth above and further in view of Welch et al, US Patent Application Publication 2002/0119722. Kobayashi discloses a material as set forth above. Kobayashi differs from the claimed invention because Kobayashi does not disclose that the elastomeric fiber is a polyurethane fiber. Welch teaches that polyurethane fibers are suitable for use as the elastic fibers in nonwoven fabric, see paragraph 0052. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed polyurethane fibers as the elastic fibers in Kobayashi, motivated by the teaching of Welch that such fibers are suitable for use in forming the elastic fibers which impart elasticity to nonwoven fabrics.

7. Claims 11, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi in view of Billarant and Welch as applied to claims 5 and 18 above, and

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further in view of EP 611049. Welch discloses employing polyurethane fibers, but does not disclose that the polyurethane fibers comprise a lubricant. EP 049 teaches that applying a lubricant to polyurethane elastic fibers results in the fiber having a reduced tendency to break. See page 2, paragraph 2. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a lubricant to the polyurethane fibers of Welch, motivated by the teaching of EP '049 that this improved the resistance to breaking of the fibers.

8. Applicant's arguments filed 10/24/05 have been fully considered but they are not persuasive. Applicant argues that Billarant would have motivated one of ordinary skill in the art to have formed slits in the inelastic second fibers rather than the elastic first fibers since Billarant slits the sheath of the elastic fiber which is inelastic. However, Billarant still teaches slitting the elastic fiber component in order to further enhance the elasticity of the fiber. Therefore, one of ordinary skill in the art would have been motivated to form the slits in the elastic fiber of Kobayashi in order to further enhance the elasticity of the fiber, especially if a conjugate fiber were used as the elastic fiber as taught by Billarant.

9. With regard to the new claims reciting a lubricant, this limitation is addressed by a new rejection as set forth above.

10. With regard to new claim 12, Applicant argues that it is not clear that the fiber material of Kobayashi would meet the limitation of the second fibers being attached to one of the first fibers multiple times, because the elastic and inelastic fibers of Kobayashi are not components of a conjugate fiber. However, the inelastic fibers of

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Kobayashi are disclosed as being conjugate fibers. Also, there is nothing in claim 12 which requires either the elastic or inelastic fibers to be conjugate fibers. Further, since Kobayashi teaches that the inelastic fibers can be continuous fibers, it would seem that the fibers could be bonded multiple times over the length to the first elastic fibers.

11. With regard to new claim 19, this claim is addressed by a new rejection set forth above.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

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Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

A handwritten signature in black ink, appearing to read "Elizabeth M. Cole", with a stylized flourish at the end.

Elizabeth M. Cole
Primary Examiner
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e.m.c